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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,721	07/26/2001	Jerry D. Schermerhorn	1-23271	8200

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EXAMINER	
LEURIG, SHARLENE L	
ART UNIT	**PAPER NUMBER**
2879	

DATE MAILED: 05/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N .	Applicant(s)	
	09/915,721	SCHERMERHORN ET AL.	
	Examiner	Art Unit	
	Sharlene Leurig	2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 December 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16,25 and 30-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *2-16 and 25* is/are allowed.

6)☒ Claim(s) *1 and 30-32* is/are rejected.

7)☒ Claim(s) *33-35* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on December 16, 2003 has been entered and acknowledged by the examiner. Claims 17-24 and 26-29 have been cancelled, claims 30-35 have been added and claims 11, 2, 6, 8-11, 16 and 25 have been amended.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 and 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schermerhorn (5,723,945) (of record) in view of Kanazawa et al. (6,288,692) (of record).

Regarding claim 1, Schermerhorn discloses a plasma flat-panel display comprising a first transparent substrate (12), an array of pairs of parallel sustainer electrodes deposited upon the first substrate, two of which are shown in Figure 7, element 20, each of the pairs having a first sustainer electrode and a second sustainer electrode, a dielectric layer and a protective layer formed of electron emissive material covering the dielectric (22 and 23), a second substrate (14) hermetically sealed to the first substrate, an array of micro-voids (26) that can be formed into the surface of the

second substrate (column 5, lines 39-41), a plurality of address electrodes (40) incorporated within the second substrate, orthogonal to the sustain electrodes and corresponding to the micro-voids (column 7, lines 43-47), which cooperate with the first substrate to define a plurality of subpixels, each of which defines a controlled discharge volume at the intersection of the address and sustainer electrodes, a phosphor material deposited within each micro-void and associated with the address electrodes (column 7, lines 64-67), and a gas filling the micro-voids (column 8, lines 52-59).

Schermerhorn lacks disclosure of auxiliary electrodes formed on the first substrate.

Kanazawa teaches three sets of electrodes formed on the first substrate of a flat plasma display, including Y electrodes, Xe electrodes and Xo electrodes (Figure 14; column 10, lines 27-39). All three electrode sets are connected to sustain voltage drivers. The Xe and Xo electrodes can be interpreted as the first sustainer electrode and the second sustainer electrode, respectively. The Y electrodes, which consist of a pair of electrodes (51a and 51b) are deposited on the first substrate parallel to and corresponding to each of the pairs of sustainer electrodes Xe and Xo, and at least one is adjacent to the first sustainer electrode Xe, and can be interpreted as auxiliary electrodes.

Regarding claim 8, the auxiliary electrodes (Figure 14, elements 51a and 51b) are positioned between the first (52o) and second (52e) sustain electrodes.

Regarding claim 9, the auxiliary electrodes (Figure 14, elements 51a and 51b) are positioned outside of the first (52o) and second (52e) sustain electrodes. The first

and second electrodes are grouped in pairs separated by slits 73 (column 10, lines 21-22), shown on the far left side of Figure 14. The Y electrode pair is interposed between those pairs, as shown in Figure 14. Therefore the Y electrode pair can be seen as being outside of the sustain electrodes.

Regarding claim 10, the sustain electrodes 52o and 52e are of the same width, as can be seen in Figure 14, but are of different width than the auxiliary electrode pair 51a and 51b.

Kanazawa teaches this formation of electrodes in order to provide a plasma display that prevents deterioration of contrast and minimizes power consumption (column 2, lines 35-38).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schermerhorn's plasma display with auxiliary electrodes positioned adjacent sustainer electrode pairs in order to provide a plasma display that prevents deterioration of contrast and minimizes power consumption, as taught by Kanazawa.

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double

patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 1 stands rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No. 6,459,201 to Schermerhorn et al. (of record), formerly application number 09/376,130. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claims include the limitations of a first transparent substrate, at least one pair of parallel sustainer electrodes deposited upon the first substrate, each of the pairs of sustainer electrodes including a first sustainer electrode and a second sustainer electrode, a dielectric layer formed from a dielectric material covering the electrodes, a protection layer formed from an electron emissive material covering the dielectric layer, which is claimed in claim 2 of the patent, a second substrate which is hermetically sealed to the first substrate comprising an array of micro-voids formed in the surface of the second substrate which is adjacent to the first substrate, a plurality of address electrodes incorporated within said second substrate, each of said address electrodes corresponding to the sub-pixels, a phosphor material deposited within each micro-void and associated with said address electrodes, and a gas filling said micro-voids. The sole difference between claim 1 of the outstanding application and claim 1 of the patent is that the patent claim refers to a “control electrode” rather than an “auxiliary electrode” deposited upon the first substrate parallel to the sustainer electrodes. However, this difference is nominal and therefore obvious.

Allowable Subject Matter

6. Claims 2-15, 16 and 25 are allowed.

7. The following is an examiner's statement of reasons for allowance:

Claim 2 was indicated as containing allowable subject matter in the previous office action, and has been amended in independent form and is therefore allowable, as are claims 3-15 which depend on claim 2.

Claims 16 and 25 were indicated to contain allowable subject matter in the previous office action but were rejected under 35 U.S.C. 112, second paragraph. Claims 16 and 25 have been amended to overcome that rejection and are therefore allowable.

8. Claims 33-35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The Examiner notes that the Prior Art of Record discloses a plasma display having a first transparent substrate, pairs of parallel sustainer electrodes deposited upon the first substrate, including first sustainer electrodes and second sustainer electrodes, a pair of auxiliary electrodes deposited on the first substrate parallel to the first pair of sustainer electrodes, at least one of the auxiliary electrodes being adjacent to the first sustainer electrode in the first pair of sustainer electrodes, a dielectric layer covering the sustainer electrodes, a protection layer covering the dielectric layer, a second substrate which is hermetically sealed to the first substrate with a plurality of

micro-voids formed in a surface adjacent to the first substrate, the micro-voids cooperating with the first substrate to define a plurality of sub-pixels, a gas filling the micro-voids, a phosphor material deposited within each micro-void, and a plurality of address electrodes incorporated within the second substrate, each of the address electrodes corresponding to one of said sub-pixels.

Regarding claims 33-35, the references of the prior art of record fail to teach or suggest the combination of limitations as set forth in claim 33, and specifically comprising the limitation of the plasma display having the structure of claim 1 further having first and second sustain pairs that are alternately mirrored along the array.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

9. Applicant's arguments filed December 16, 2003 have been fully considered but they are not persuasive.

The applicant has argued that the combination of Schermerhorn (5,723,945) and Kanazawa et al. (6,288,692) does not teach or suggest each and every limitation of claim 1, and specifically lacks a pair of auxiliary electrodes formed between the first and second sustain electrodes. The examiner disagrees, and directs the applicant to Figure 14 of Kanazawa, which illustrates a pair of auxiliary electrodes (51a and 51b) formed

between the first and second sustain electrodes (52o and 52e). Therefore the combination of the Schermerhorn and Kanazawa references does teach and suggest each and every limitation of claim 1, and therefore the rejection is maintained.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharlene Leurig whose telephone number is (571) 272-2455. The examiner can normally be reached on Monday through Friday, 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (571) 272-2457. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

sll

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